

Climate Change and Migration in Bangladesh: Enhancing The Local Government's Adaptive Capacity Throughout A Participatory Budgeting Process

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Abstract- Bangladesh is one of the most vulnerable countries to climate change. Due to the geographical location and being a riverine country, it faces various natural disasters. Migration has become an adaptation and survival strategy when natural disasters strike and peoples' livelihoods are damaged or threatened. Black et al. (2013) predicted that in Bangladesh alone, 26 million people would be likely to be displaced by 2050 as a result of floods and storms induced by climate change. In coastal and river bank regions, poor citizens rely on government support and assistance after losing their livelihoods. The Bangladeshi local government's lowest tier Union Parishad is closest to the poor and vulnerable people. Union Parishad is the only service delivery institution in Bangladesh where impoverished people can easily access help and support. But historically, the Union Parishad has not provided adequate support to the vulnerable citizens during natural disasters. This research aims to support climate migrants and locally resettled victims of climate change by applying the Union Parishad budgetary intervention. Participatory Budgeting is a very successful method to establish financial democracy. The Brazilian intervention has been widely exported from Latin America all over the globe. This process is exceedingly beneficial to citizens as it requires their participation and involvement in the budget planning and formulation process. Thus, the budget is people-oriented. Since Bangladesh's budget figures are hidden within unseen documents, the introduction of Participatory Budgeting within the Union Parishad budget cycle will allow the figures to be more transparent. This research paper also reveals how the Participatory Budgeting process will have an active role in reducing climate migration through the efforts of the Union Parishad and its citizen's active participation. The study attempts to understand this topic and tries to establish Participatory Budgeting in Bangladesh in order to reduce poverty and climate migration.

Keywords- Climate Change, Migration, enhance, local government, Adaptive capacity, participatory budgeting process.

I. INTRODUCTION

Bangladesh is one of the highest populated density regions in the world. Its total population amounted to 156.6 million in

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2013 (BBS, 2013). Bangladesh's GDP per capita was \$1,314 in 2015 and the GDP growth rate was 6.6 percent on the basis of 2015-2016 (World Bank, 2016). Bangladesh is one of the poorest and lowest-lying coastal countries on the globe. Two-thirds of the total land is less than five meters above sea level. Luetz (2013) stated that 49.6 percent of the population lives below the poverty line on the basis of purchasing power parity (PPP). Climate change is a fundamental environmental issue in the modern world and many countries have been severely affected by the effects of climate change through various climatic catastrophes. Being situated in the world's largest delta formed by the rivers Ganga, Brahmaputra, and Meghna (Kartiki, 2011), it is no surprise that Bangladesh is one of the most vulnerable countries to climate change (IPCC 2007; Solomon et al. 2007).

Climate change and human displacement are major challenges facing Bangladesh because of the poor economic and social infrastructure. Black et al. (2013) and Myers and Kent (1995) estimated that in Bangladesh alone, 26 million people would be displaced as a result of floods and storms by 2050. This number accounts for almost 11 percent of the total population projected for the country (Bardsley & Hugo, 2010). Hassani et al. (2012) demonstrated an agent-based model that predicted between 3-10 million internal migrants over the next 40 years depending on the severity of the hazards. Climate induced migration or displacement has become a common type of population mobility in Bangladesh.

Being a riverine country, Bangladesh is often affected by floods and erosions of river banks on a seasonal basis. Residents in the coastal and river regions are the most vulnerable to floods and erosion. The IPCC (2014) & Ahmed et al. (2009) outlined that extreme events increase poverty in developing countries, particularly in Bangladesh. Since the agricultural industry in Bangladesh is highly dependent on natural resources, seawater inundation has caused various challenges for the traditional agriculture sector and other low-lying nations (Rahman et al. 2009). Climate change has affected Bangladesh as a whole, and the people are victimized in various ways. Cyclones, storms, floods, water scarcity, water salinity, river erosion are prevalent problems in

Bangladesh. People's agriculture-based livelihoods are prone to great risk (Biswas et al. 2015). Many farmers, boatmen, fishermen, day laborers, and rickshaw pullers and those in the tourism industry have lost their traditional professions due to these climatic hazards. Consequently, climate change affects poor and marginalized populations the most because their livelihoods rely on natural resources which are often affected by climate change (Rodima et al. 2012). Due to the negative implications of climate change on people's livelihoods, many resorts to migrating elsewhere to seek a better future (Kartiki 2011).

This research attempts to address how local governments can play a significant role through policy interventions, especially through a Participatory Budgetary process, to aid the victims of climate change. Union Parishad (lowest tiers of the local government body), the grassroots rural local government in Bangladesh, comprises significant local officials from rural regions who play a vital role in addressing climate change issues. Furthermore, the Bangladesh government implemented the Bangladesh Climate Change Strategy and Action Plan 2009(BCCASP) through the Union Parishad.

In Bangladesh, the Union Parishad is directly involved in implementing a range of projects before or after natural disasters. However, the local people and government are not able to actively partake in these decision-making processes due to the lack of funding from the central government. Haque et al. (2013) mentioned that the local governments in Bangladesh were unable to provide long-term support to their communities due to being "too dysfunctional" leading to insufficient budgets, incorrect allocation of local resources and being too dependent on the central government for policy and funds. Similarly, Rahman and Ahmed (2015) stated that the Bangladesh local governments are not aware of how to mobilize their local resources, hence, they play a weak role in the system of governance in this nation. From this perspective, as long as local governments remain dependent on national government resources, they will be unable to effectively combat the challenges of climate change.

Moreover, this study will explore the relationship between climatic stress, changes to traditional livelihoods and the triggers of migration in affected areas. In regards to the Bangladeshi migration issue, both push and pull factors influence the people's decision to move, however, it has been noted that push factors are more prevalent than pull factors. Push factors are circumstances by which people are forced to move away from their homes. These may include cyclones, floods, and river erosion. Despite pull factors including job opportunities, education, secure shelter, and other amenities that exist to attract people to a certain location, climate victims are more influenced by push factors as they have no choice. When people lose everything (e.g. homes and livelihoods) and are afraid of the uncertainty of natural disasters, they have no reason to continue living amidst the unpredictable. Consequently, their subsequent choice is to

migrate to neighbouring areas or a local city. Migration is an alternative adaptation strategy in this circumstance.

This research tries to establish how Participatory Budgeting (PB) can strengthen the local government and ultimately produce a pro-people budget. PB can bridge the local government to other organizations and communities. Moreover, it creates a new project that requires the participation of local citizens in the local government budgetary process, thus it is more people-oriented. The Participatory Budgeting process can easily address and keep a budget allocation for citizens affected by climate change. This research seeks to address the role of participatory budgeting in reducing climate-induced migration.

II. BACKGROUND OF RESEARCH

Bangladesh is one of the poorest and lowest-lying coastal countries on the globe. Two-thirds of the total land is less than five meters above sea level. Being a riverine country, Bangladesh is often affected by floods and erosions of river banks on a seasonal basis. Residents in the coastal and river regions are the most vulnerable to floods and erosion. The IPCC (2014) & Ahmed et al. (2009) outlined that extreme events increase poverty in developing countries, particularly in Bangladesh. Since the agricultural industry in Bangladesh is highly dependent on natural resources, seawater inundation has caused various challenges for the traditional agriculture sector and other low-lying nations (Rahman et al. 2009). Climate change has affected Bangladesh as a whole, and the people are victimized in various ways. Cyclones, storms, floods, water scarcity, water salinity, river erosion are prevalent problems in Bangladesh. People's agriculture-based livelihoods are prone to great risk (Biswas et al. 2015). Many farmers, boatmen, fishermen, day laborers, and rickshaw pullers and those in the tourism industry have lost their traditional professions due to these climatic hazards. Consequently, climate change affects poor and marginalized populations the most because their livelihoods rely on natural resources which are often affected by climate change (Rodima et al. 2012). Due to the negative implications of climate change on people's livelihoods, many resorts to migrating elsewhere to seek of a better future (Kartiki 2011).

III. RESEARCH METHODOLOGY

The research uses qualitative and quantitative methods in social science study. This thesis is a critical appraisal of the methods/tools used to combat climate induced displacement in Bangladesh. The dominant desk-based study utilizes secondary sources of information for analysis. The main secondary sources involve published literature and other researchers' findings. The material studied includes a literature review alongside comparative analysis and synthesis of findings, as discussed in section 2 "Literature Review". Further research conducted includes displacement and migration trends, adaptive capacity and the local government's role in the budgetary process. In addition, relevant government policies and development documents

were reviewed. This research also used country-based studies, local NGO, and local and international donor agencies' research publications. Website searches of relevant literature were also used.

This thesis approaches a chronological research method to obtain background knowledge about Bangladesh. This exposed many challenges for the local government system, particularly for Union Parishad and its budget-making process. Therefore, this thesis prompted a specific focus on climate displaced people and their livelihoods by effective Union Parishad budgetary process with the participation of local people. Consequently, the research question focuses on how to reduce displacement and improve livelihoods through the local government participatory budget system. The next step uses the necessary theories and approaches for analysis. This research employs the migration theory with an emphasis on the participatory budgetary approach. A context analysis of the one Unions Parishad's (7 no Purnimagati Union Parishad, Sirajganj) budget documents. Moreover, the previous eight years' budget documents of Purnimagati UP were collected and analysed by sectors. These documents enabled the process of calculating how much they earned based on their own resources and revenue. It also examined tax collection patterns and natural or climate change related allocations. Problems with traditional budget planning and implementation processes were also identified.

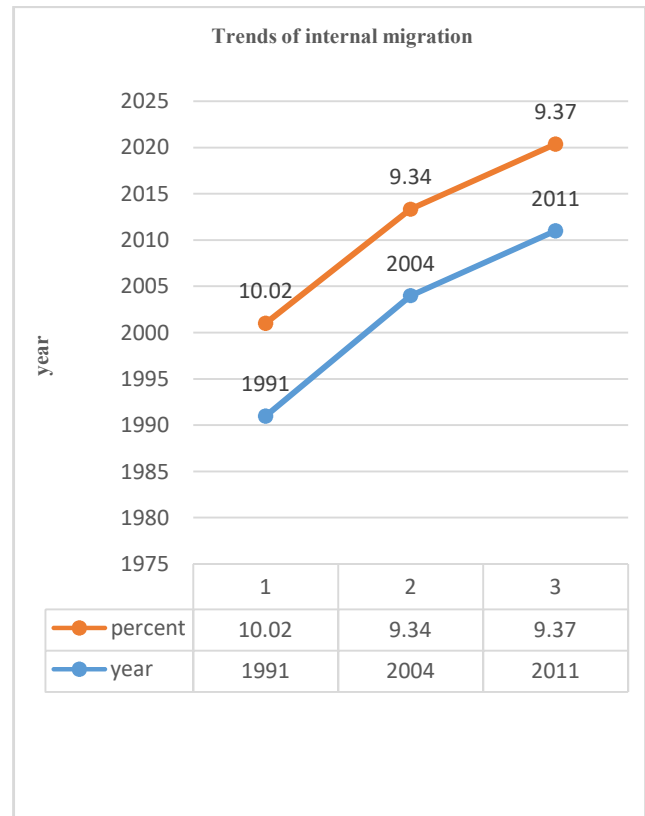
IV. LITERATURE REVIEW

Bangladesh Climate Change and human displacement

Climate change, natural disasters, and human displacement are common in Bangladesh. Almost every year the country faces different types of natural disasters and climate variability. Floods, cyclones, river erosion, droughts, salinity, sea-level rise, storms, heavy or shortfall of rain are the main types of natural disasters. Luetz (2013) noted that, on average, Bangladesh is affected by "16 major cyclones per decade". According to the definition of disasters defined by the Emergency Events Database (EM-DAT), Bangladesh was affected by 164 natural disasters during the years 1990-2007. People also lost their traditional livelihoods and employment and helpless people left their ancestral habitats every day. The Ministry of Environment and Forest along with the Government of Bangladesh have already made plans for the next decade (Bangladesh Climate Change Strategy and Action Plan-2009) to combat climate change (GoB, 2009). This research has examined various governments' policy but especially focuses on these following issues. This policy document covered climate, natural disaster history, Bangladesh socio-economic condition and introduced the six pillars strategy to protect people affected by climate change and variations. It is also mentioned that the country's overall development strategies will follow its aim for social and economic development. These initiatives are implemented by the government with cooperation with other donors and non-governmental agencies.

This research found that BCCSAP (2009) lacks the ability to reduce climate-induced displacement, ensuring livelihoods are secure and encourage citizens to live around their local area (see figure 1). Human displacement tends to increase urbanization as most people move to cities. According to the latest census on slum dwellers and floating population conducted by the Bangladesh Bureau of Statistics (BBS, 2014), 2.23 million people live in slums across the country, and 1.06 million people in Dhaka alone. Most of the population migrate to cities to earn their livelihood after loss and damage to their land and houses.

Figure 1: Trends of internal migration



Source: Bangladesh disaster-related statistics 2015, BBS

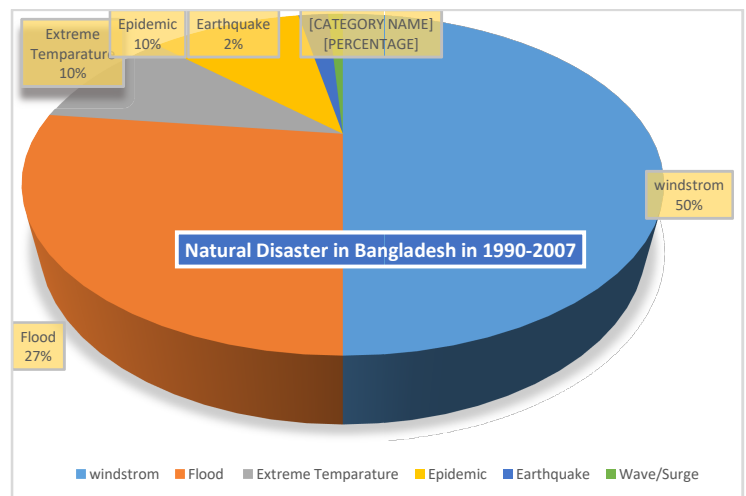
Different Types of Natural Disaster in Bangladesh happened every single year. Devastating cyclones in Bangladesh as the main trigger of mass human displacement and 53 percent of the world's deaths from cyclones have taken place in Bangladesh (Naser 2012). Bangladesh is a riverine country which is affected by floods and river bank erosion a seasonal basis. Almost 80 percent of the country is made up of floodplains and, on average, 20 percent of the country becomes flooded annually (Agrawala et al. 2003). Floods and river erosion are the main causes of internal migration in Bangladesh. According to the Centre for Environment and Geographic Information Services (CEGIS), 0.1 million people lose their homes every year due to river bank erosion (Francis and Maguire, 2016).

The Bangladesh coastal area is very vulnerable due to a low-lying topography. Two-thirds of the country is less than five meters above the sea level and 20 percent is located within one meter or less above sea level. IPCC (2014), noted that in 2050, the country's 27 million people will be at great risk of sea-level rise. Sea level also will expand and encroach further increasing the Bangladeshi coastline by 120 kilometers by 2030 (IPCC, 2007). The rising sea level is likely to have effects on saltwater intrusion, inundation, and coastal erosion, as well as storms that are more destructive and decrease freshwater holdings. Research projections show that climate change will exacerbate drought in the northern parts of Bangladesh. Desertification also gradually decreases the country's land productivity and people's livelihood. Fresh water scarcity and increase in salinity water is a big problem in both northern and southern parts of Bangladesh (Miyan 2015). It is indeed a climate related disaster that influences human displacement and migration.

Climate change impacts in Bangladesh

This section will explore climate change effects in Bangladesh and why people choose to migrate. With a large population, Bangladesh is one of the top 10 countries with the highest population and the largest concentration of people living in Low Elevation Coastal Zone (i.e. areas less than 10 meters above sea level) (McGranahan et al., 2007). Bangladesh's northern region is affected by dry weather and a lack of rainfall, while the southern region is affected by sea levels rising, salinity, cyclones, and floods. Martin et al. (2013) and Rahman et al. (2007) have pointed out that in Bangladesh, more intense disasters such as flood, extreme rain, cyclones and drought events could mean the destruction of habitats, livelihoods, and infrastructure while floods and the increasing salinization of the agricultural fields could make these impacts linger on.

Figure 2: Bangladesh: natural disasters by type (total: 164 disasters; in between:1990-2007)



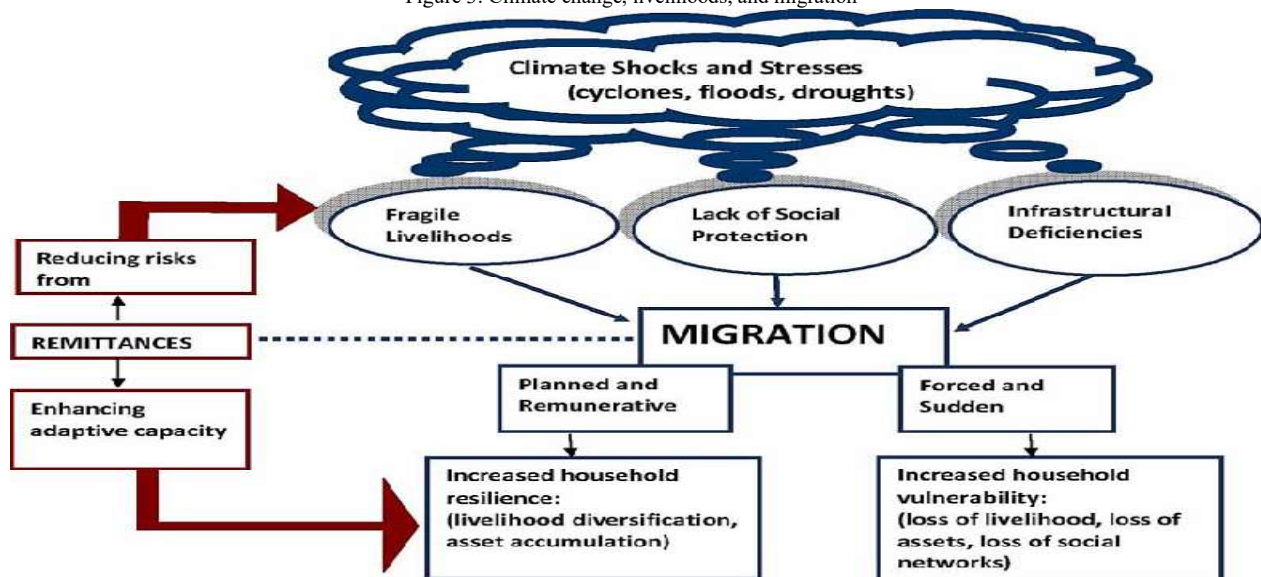
Data source: www.em-dat.net.

Climate change has severe impacts on the whole of Bangladesh. The following paragraph explores the major contributors to these impacts.

a) *Climate change and livelihood*

As previously mentioned, 23 percent of the population lives in the coastal and river erosion areas. These people are very much affected by any natural or climatic disaster. Climate change is most pronounced amongst the poor and marginal populations whose livelihoods are primarily natural resource-based, and where climate change has the potential to cause long-term transformations in local social-ecological systems (Rodima et al. 2012). Kartiki (2011) highlighted the adverse impacts of natural disasters on people's housing and livelihoods as some of the main factors that affect their decision to migrate.

Figure 3: Climate change, livelihoods, and migration



Source: Kartiki, K. (2011:29)

b) Climate change and the effects on the homeless or shelters

Climate change and the effects on the homeless or shelters also, Kartiki (2011) and Ayers et al. (2014) identified the 230 main rivers that flow through Bangladesh. About 80 percent of the land area is made up of floodplains, so the majority of Bangladesh (with the exception of the far west 'highlands') is prone to flooding for at least part of the year, with the floodplains of the north-western, central, south-central, and north-eastern regions being subject to regular flooding. Unfortunately, most people are affected by at least one flooding disaster every year. Consequently, it has been predicted that 26 million people will be displaced by 2050 due to natural disasters, especially floods and storms (Black et al., 2013). Apart from Bangladesh, China and India are also heavily affected by flood risks and associated human and asset losses (Handmer et al., 2012).

Table1: Impact of 164 natural disasters in Bangladesh, 1990-2007

Human Impact	Cumulative Total	Annual Average
Killed (People)	159,133	8,841
Affected (People)	151.1 million	8.4 million
Economic loss	US\$13.7 billion	US\$761 million

Source: Statistics based on EM-DAT International Disaster Database

c) Climate change and health issues

Climate change and health issues is another alternative part of Bangladeshi people. They have suffered directly and indirectly from climate-related diseases. Kim et al. (2014) explained the links between climate change and human health problems. Moreover, climate change will expose 35 to 77 million Bangladeshis to contaminated water and the health risks associated with this issue (Mahmood, 2012).

d) Climate change and education

It is no surprise that schools and students in remote areas have been affected by natural disasters brought on by climate change. Consequently, the Intergovernmental Panel on Climate Change has prioritized education as one of their main concerns (Solomon et al. 2007). In 2007, Cyclone SIDR destroyed 849 schools and affected 46,000 students (Das, 2010).

e) Climate change and food

Poor Bangladeshi people struggle greatly for food availability and security. Food insecurity is the biggest threat in the climate-affected areas. Huq et al. (2015) stated that climate change-affected people experience severe food insecurity and limited access to food markets. Food insecurity is intensely prolonged when natural disasters hit and in some cases have affected regions throughout the year.

f) Climate change and agriculture

Agriculture is the dominant sector in the Bangladeshi economy. This sector has the highest level (47.5 percent) of labour force participation. This area contributed to the GDP level with 12.64 percent of resources in 2013-14. Flood, drought, and high levels of salinity in the water severely damage agricultural crops and people's daily food intake every year. The IPCC (2014) and Pachauri et al. (2015) forecasted that rice and wheat production will decline by 8 percent and 32 percent respectively, by the year 2050. Agrawala et al. (2003) predicted a decrease of 28 percent to 57 percent GDP for every one meter of rising sea level.

g) Climate change and poverty

Climate change is a major contributing factor to poverty and also the main obstacle to reducing poverty (Harrold et al. 2003). However, in the Bangladesh context unemployment, river and land erosion, sudden disaster-related pushes and other main contributory factors lead to poverty (Banks et al. 2011). A large majority of migrants live below the poverty line in extreme impoverishment and are stripped of their rights from the government (MoE, 2008; Banks et al., 2011). Currently, more than 40 million citizens live in a disaster and poverty cycle as their homes are prone to coastal and river erosion (Williams and Gemenne 2016).

h) Climate change and migration

In Bangladesh, the issues of climate change and migration are closely related. It has been estimated that 26 million people will be displaced by 2050 due to climate related disasters. (Black et al., 2013; Myers & Kent, 1995). The Bangladeshi government predicted the same in their NAPA and BCCSAP (2009) policy. Black et al. (2008) noted that every year more than one million people lose their land and home to river erosion. As an example, people living on chars (small islands) often need to move regularly to another char, although these islands are places characterized by extreme climate (environmental) vulnerability (Bhatta et al., 2015). The RMMRU (2007) concluded that in the first stages of migration, people prefer to relocate to a nearby region. Moreover, seasonal migration is a common trend in Bangladesh.

i) Climate change and slums

Many migrants are attracted to urban cities due to the job and education opportunities available. Banks et al. (2011) pointed out that Dhaka attracts 300,000 to 400,000 new migrants each year (World Bank, 2009). The majority of those displaced are poor farmers heading for the bustees (slums) in the cities and towns.

j) Climate change and gender

Women and children are more vulnerable than men to natural and climatic disasters. Ali et al. (2006) noted that women and children in Bangladesh are especially vulnerable to the health effects of flooding.

The status of the humans displaced in Bangladesh

In 1996 the United Nations High Commissioner for Refugees (UNHCR 1996, p. 9) defined “environmentally displaced persons” as “persons who are displaced within their country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessarily the sole one.” The currently accepted definition of “internally displaced persons” (IDPs) describes this category of people as:

“... persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.” (Guiding Principles on Internal Displacement, E/CN.4/1998/ 53/Add.2.)

Whatever they are called, environmental displacement or human displacement or climate migrants all are environmental victims. This research treats climate migrants or human displacement sufferers as displaced people.

Human displacement: Permanent or Temporary?

In Bangladesh permanent and temporary displacement happens regularly. Mostly it depends on the patterns of disasters. Sudden disasters cause temporary migration. Whereas regular or continuing disasters lead to huge effects on the population, then the people's migration decision is often permanent. In a different country's perspective, socio-economic condition climate change and natural disaster is not the main cause of the people's migration. But specifically in the Bangladesh context, this research wants to find out how climate change and natural disasters from the main contributory factor for people's migration. The Bangladeshi river and coastal belt area's see people totally dependent on natural resources and agricultural activities. Regular river bank erosion, salinity, salt water inundation result in loss and damage to people's livelihood and shelters, leading to their decision to permanently migrate. Whereas temporary migrants return to their home subsequently getting some help and support from the government or any organization or relatives.

This occurs when they feel safe and have the potential of livelihood secured in the future.

Human displacement: Forced or Voluntary?

In the Bangladesh context, many people live in charland, on islands, alongside rivers and the coastal areas, making them very vulnerable to any natural disaster. They also live below the poverty line. When they lose their homes and livelihood by climate change they have no alternative but to migrate. In Bangladesh, the greatest levels of internal migration have been forced.

Lack of knowledge and awareness of climate change displacement

Lack of knowledge and awareness of climate change displacement is another important part of the Bangladesh context. The majority of the Bangladeshi rural and remote coastal people, and local government representatives and their employees are less aware of climate change. According to Agrawal (2008, pp. 3–5) and Bimal and Star (2014), institutional innovation and learning are required to establish partnerships and collaboration with relevant individuals which reduces the need for financial and technological resources to combat climate change.

Existing Policy analysis

The policy is the main guideline to implement and affect any projects and to resolve issues. A comprehensive and integrated climate change policy should be minimized by climate risks. The Bangladesh government made NAPA (National Adaptation Programme of Action) in 2005. NAPA has been criticized by the civil society, NGO and other stakeholders due to excluding citizens in the preparation process. In 2008, the government organized consultation meetings with different stakeholders and introduced a comprehensive climate change policy. Climate Change Strategy and Action Plan 2009 (BCCSAP) is the main goal to tackle climate change impact, adaptation and support affected people. BCCSAP's funding sources are the Bangladesh Climate Change Resilience Fund (BCCRF) and Bangladesh Climate Change Trust Fund (BCCTF). But climate migration is still increasing. According to the Bangladesh disaster related statistics (BBS 2015) in 2004 internal displacement was 9.34 percent and in 2011 it increased to 9.37 percent.

V. THEORETICAL FRAMEWORK'S

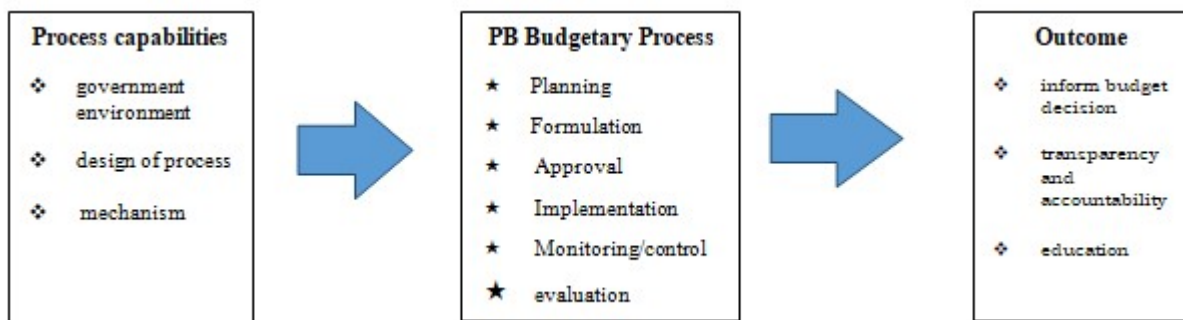
This research uses two theoretical frameworks. It is primarily based on the migration theory which will be used to understand the current situation and circumstances in Bangladesh. The biggest concerns for Bangladesh are climate change and its effects, especially human migration. Therefore, it is necessary to understand the term “migration” and the theories underpinning it. A participatory budgeting approach

has been employed to reduce climate migrants. The reason why these two theories have been considered is because of their relation to one another. The main focus is to build a capacity building of local government through the participatory budgetary process and make some new projects for reducing climate migrants. The main objective of participatory budgeting to facilitate people’s participation, delivering professional services and also support poor climate victimized citizens. The process of participatory budgeting is also a very useful form for mobilizing local resources by using local knowledge to support climate threatened people and their livelihood. This research seeks to alternate between the two theories and present a sustainable adaptation strategy to combat the effects of climate change. Lee’s Push-Pull Model theory is more interlinked with this research of the next component to participatory budgeting. The Push-pull theory is a very influential model in migration studies and also includes different disciplines (King, R. 2012). This migration theory highlights the decision making process, stating that it should

be made by the individual or the whole family. Patterns are reliant on the features of the origin, destination, and intervening difficulties (e.g. cost, borders). “Push” and “pull” influences can vary economically, culturally and environmentally. The push factor contains a pressure to move people go to new places and the pull factor is to attract them to a new location.

Participatory Budgeting is recognized as a financial democratic process. This approach assumes that all levels of citizens can play a vital role in the decision-making process in government budgetary allocation. Participatory Budgeting is “a mechanism (or process) through which the population decides on, or contributes to decisions made on, the destination of all or part of the available public resources” (Global Campaign on Urban Governance 2004, p.20). In this process, ordinary citizens take their own decisions on the budgetary allocation and prioritization of projects. PB allows the non-elected people’s participation for budgetary allocation of public funds.

Figure 4: Participatory Budgeting Framework



Source: Ebdon and Franklin (2006:438)

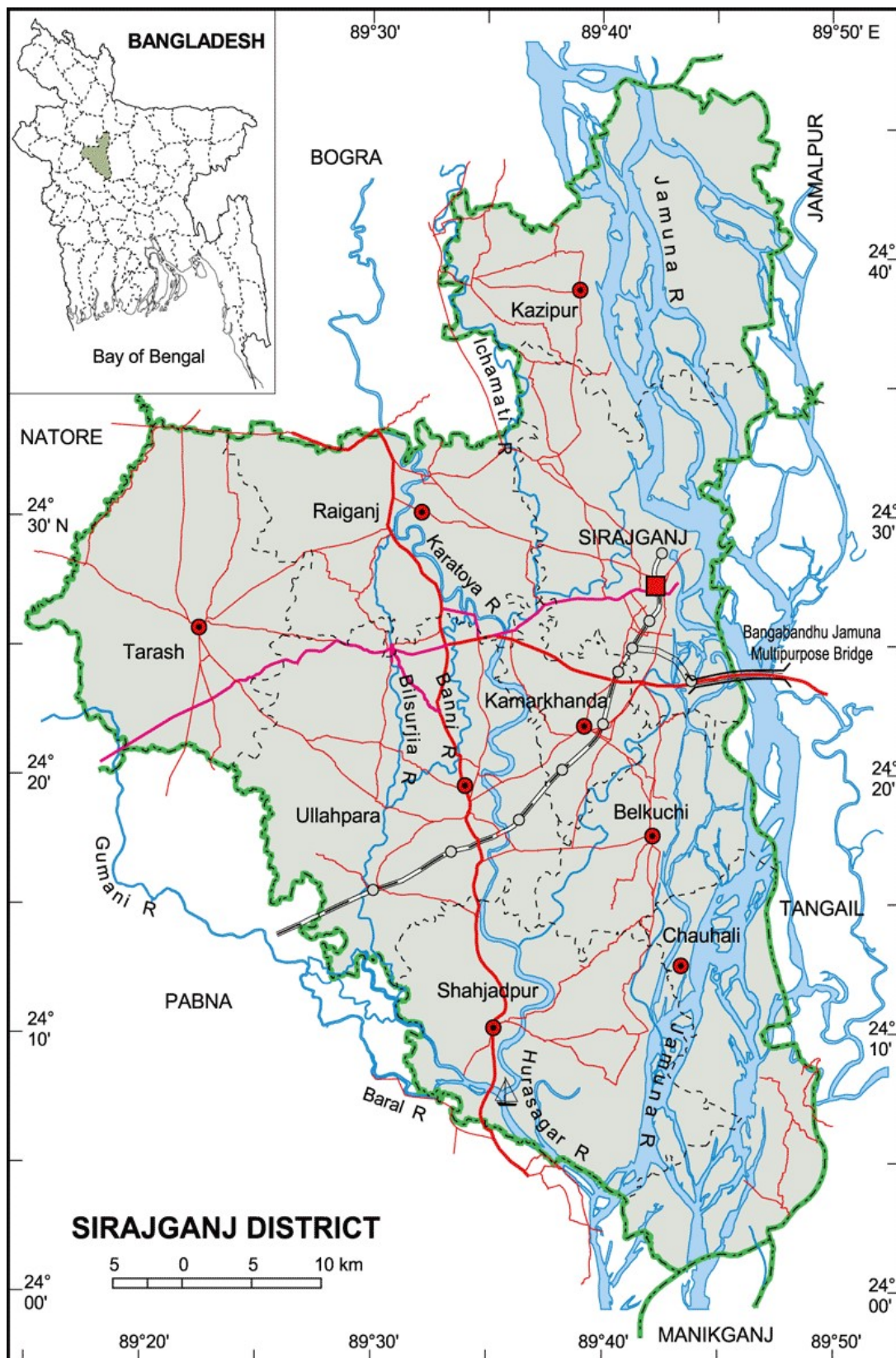
The theory explores possible ways to promote the general public to participate in the prioritization and allocation of local resources outlined in the yearly city budget, with the primary goal of redistributing these resources from the advantaged to the disadvantaged (Santos, 1998). This process makes sure to use more local resources and knowledge. It forms a bridge and trust with the local government, civil society, and other stakeholders. This method can ensure the quality project and reduce corruption and better service delivery. Participatory Budgeting can make a significant role in reducing poverty, ensuring more livelihood by identifying

local problems and projects such as climate related human displacement.

VI. CASE STUDY: UNION PARISHAD BUDGET ANALYSIS

This research selected 7 no Purnimagati Union Parishad under Ullahpara Upazila of the Sirajganj district as a case study. This Union Parishad has practiced open budgets and has a good eminence for people’s participation. In 2000, the UNDP first introduced their SLGSP (Sirajganj Local Government

Map 1: Sirajganj District and Pumimagati Union Parishad



Map2: Purnimagati Union Parishad at Ullahpara Upazila



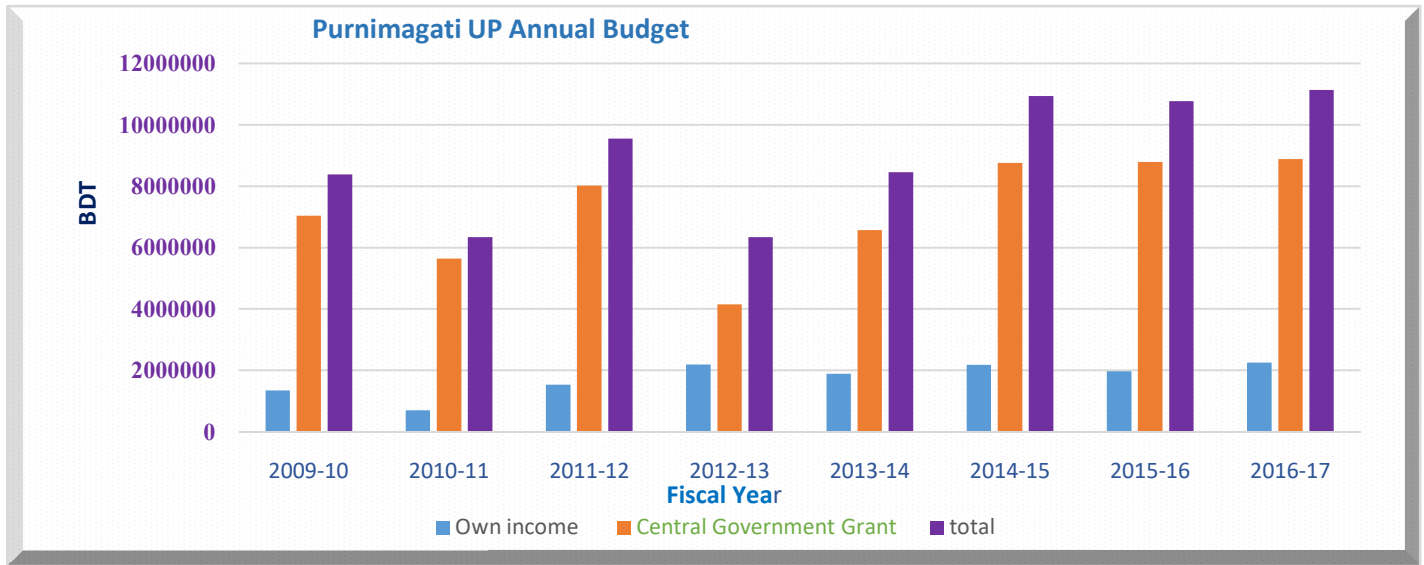
Source: Maps of Bangladesh 2016

Development Project) project in this district including UP. The aim of the project was to strengthen local governance with participatory planning and fiscal devolution. After receiving a good outcome, government and multi-donor agencies introduced the Local Government Support Program(LGSP), Union Parishad Governance Project (UPGP), Upazila Parishad Governance Project (UZGP).

Sirajgonj is a district in northwestern Bangladesh, located on the main rivers of Jamuna, Ichamati and Karatoya. Consequently, this district is inundated by floods annually. This research examined the past eight years of Purnimagati Union Parishad's annual budget. It analyzed the annual budget allocation, resource mobilization or own income, revenue and tax collection ratio, natural disaster and climate change related allocation. The below illustrations describe this with graphs.

VI.1. UP's own income

Figure 5:Purnimati UP annual budget and own income



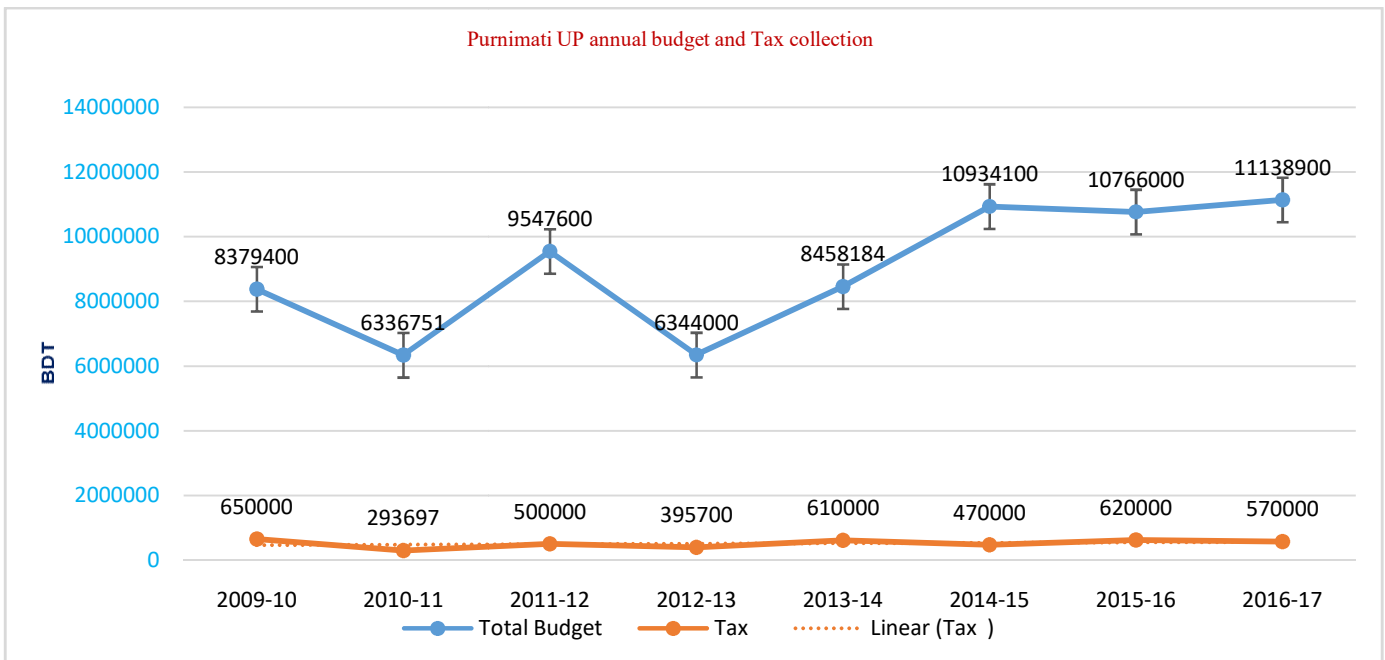
Source: Based on Purnimati UP budget book (FY2009-10 to 2016-17)

Figure 5 shows only 20 percent income from their own sources and the rest from the government direct grant or donors' project grant. With only 20 percent indigenous income, government service organization is poor. UP is always

dependent on the central government and rolling party decisions for funding. The remaining regions of Bangladesh in regards to UPs are facing similar problems.

VI.2. Tax or revenue collection

Figure 6: Purnimati UP annual budget and Tax collection



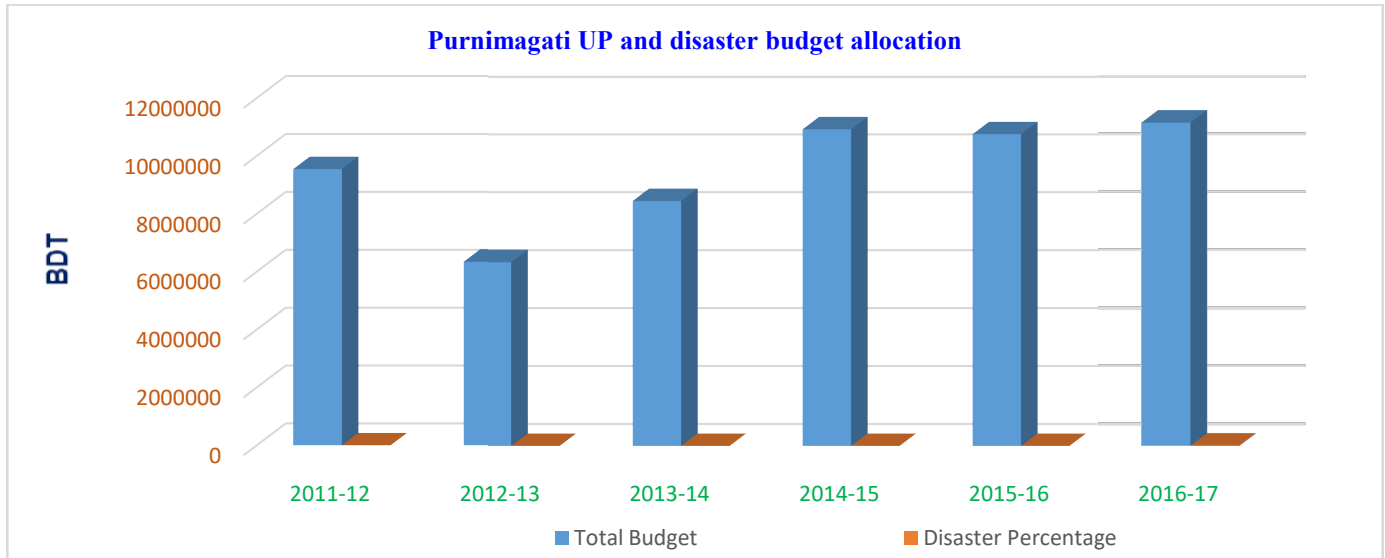
Source: Based on Purnimati UP budget book (FY2009-10 to 2016-17)

Figure 6 shows average UP reflects only 5 percent of the tax and revenue that has been collected. It is really poor and very hard to provide good service to local people. Local resource

mobilization capacity is poor and the mechanism is not working efficiently.

VI.3. Annual budget and disaster allocation

Figure 7: Purnimagati UP environment and disaster budget allocation



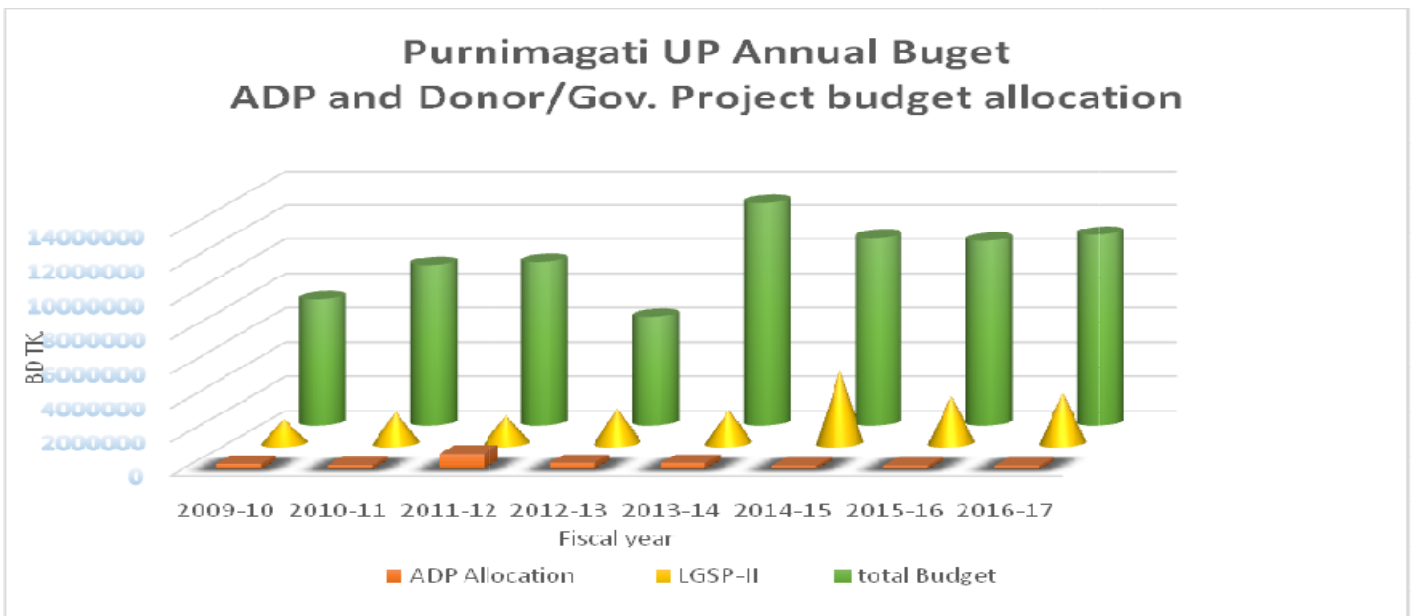
Source: Based on Purnimagati UP budget book (FY2009-10 to 2016-17)

figure 7 shows an average 0.31 percent budgetary allocation for this disaster level Union Parishad. Almost every year this district and Union Parishad is affected by floods, river bank

erosion, cyclones, and other natural disasters, but there have no reflection or special allocation along with their budget line items.

VI.4. Comparison between Annual Development Budget and Donor and Gov. project budget

Figure 8: Purnimagati UP ADP and LGSP II project budget allocation



Source: Based on Purnimagati UP budget book (FY2009-10 to 2016-17)

This graph shows an average of less than 2 percent budgetary allocation for the Annual Development Programme (ADP) while multi-donor and government funded projects budget 5 to 7 times more from the Annual Development Programme. Local Governance Support Project II (funding by UNDP/UNCDF, aims to improve local governance and local service delivery) is currently running and will be completed by November 2016. Then the UP will experience an enormous financial crisis. Many innovative and institutional approaches towards poverty reduction programs will be under deep threat.

Union Parishad has been following the previous year's budget line item and made changes to the allocation amount in the traditional way. Only 2008-09 and 2009-10 budget statement/budget book were well explained and all the development project names, allocation, committee chiefs.

Active Participatory Budgeting can change these traditional budget systems and prioritize climate change related human displacement project and pro-poor budgeting with local people's participation.

VII. FINDINGS AND RECOMMENDATIONS

VII.1. Major Findings

This research explores and is evidenced by a wide and various government range of sources, previous research, and literature of internal migration that is still increasing. Bangladesh Climate Change Strategy and Action Plan (BCCSAP) was introduced in 2009 to help and support victimized people from climate change. Despite these interventions, human displacement and changes to their livelihoods are still increasing. Even Union parishad, local government, and linked ministries cannot follow the policy guidelines. The research also determines climate change as a push and contributory factor for migration, particularly in the Bangladeshi context. Climate affected people very much suffer after losing their shelter and livelihood. Joblessness is another key reason to push migration in Bangladesh. The thesis also identifies from various research that there is a huge lack of knowledge about climate change issues at the grass roots level. A local government representative, staff, local administration and also grassroots people from the focus. Lowest levels of local government Union Parishad operations are very weak. Less staff, below education, insufficient budget, central government dependency Union Parishadis not performing well. Union Parishad cannot perform effectively to mobilize their own resources and revenue. Union Parishad is less capable of collecting tax and revenue due to losing their popularity, votes and power. The thesis has identified Union Parishad representatives and staff needs more training for making a pro-poor participatory budget, learn about climate change, planning and how to give better service to local citizens.

This research uncovered the country's and Union Parishad's budget document is totally hidden and the information is very

limited. Budget making process and planning stage is totally made by the bureaucrats and secretary. Union Parishad Governance Project and Upazila Parishad Governance Project projects' goal is to increase people's participation and role in financial reforms at the local level. However, the maximum Local Government (Union Parishad and Upazila) has been making its budget in the traditional way. Few Union Parishad organizes open budget sessions only fulfill projects and donor's demands. Citizens have the right to know their local and national budget allocation and other information regarding climate change issues. They can voice their concerns towards spending money from the public budget and also choosing to prioritize projects. This research identifies Union Parishad has a very poor and fragile relation with the stakeholder. Day-by-day citizens and Union Parishad have been separating over issues for some time.

This research already explained by Union Parishad and its financial planning cannot address climate change and its impact on migration as a big challenge in their development activities. Currently, Union Parishad budget made by local political leaders, rolling party's Member of Parliament, local elite and Union Parishad's representatives and their relatives choice wise. So people's demand cannot reflect the budget and its planning activities. Union Parishad address and inclusive issues of this problem reflect their activities and a special allocation of their budget.

Historically and culturally in Bangladesh donors and government projects face off after a limited time period. There is a big challenge for all Union Parishad approaches to survive under their own resources. But there have been a lot of examples in Bangladesh reflecting many successful innovations and projects that have to also discontinue under the project levels of phase off. This year (2016) Local Government Support Program II and Union Parishad Governance Project will be closed and no longer extended if, Union Parishad falls in a big financial crisis.

VII.2. Recommendations

- In rural Bangladesh Union Parishad, government officials and citizens have limited knowledge about climate change issues. Therefore, the participatory budget is the best method to disclose and share climate related information with various stakeholder's active participation.
- Country's Internal migration is increasing. Displacement and unemployment are the main factors that influence migration. Participatory Budget can make a short-time and long-time pre and post plan and create a project which supports and protects their livelihood and shelter.
- Find out an alternative livelihood, to supply shelter for victimized people, providing training and give technical support. Initial support is very important in reducing and affecting migration decisions. Analysis of this chapter explained that 92 percent of migrants

relocated in search for work because in their first month they have no income. Therefore, they require full support from Union Parishad during their first month.

- Identify the policy (like as BCCASP 2009) gap and which policy organ is not working or inactive. Union Parishad, Non-Government Organization, civil society can cooperation to government minimize this issue. Because everyone needs to realized climate change is not an individual problem it is a whole community and country's challenge.
- Co-ordination is a big problem in inter-ministry, Local Government, Union Parishad, Non-Government Organization and another stakeholder. Member of parliament, Upzilla Chairman and Upazila executive officer they often interfere UP daily's usual work, project implementation even disburses of the block grant. In order to smoothly run Union Parishad's everyday jobs, they need decentralization and independence. With active participation from the citizens, Union Parishad can cater to their projects to meet the needs of the people by prioritizing their needs and their involvement will minimize any interference.
- In order to strengthen Union Parishad, they will require more staff (especially accountants), technical support, increasing budgetary allocation, reduce central government dependency.
- Union Parishad needs capacity for building, resource mobilizing, budget preparation, and execution training. They also need how to adapt to climate change and natural disaster issues and preparedness.
- Union Parishad representative, staff, Community Based Organisation, Non-Government Organisation, and other stakeholder needs to demonstrate the Participatory Budgeting process. How citizens play a dynamic role and participate in this process. PB can make sure to financial democracy and people's empowerment.
- Union Parishad discloses all the information including budget. It will be helpful to establish organizational transparency and reduce corruption. Consequently, the citizens will be more pleased with this and ultimately regain trust in the government.
- Participatory Budget can make a bridge with all stakeholders. It is the best way to reestablish relations with Union Parishad and other stakeholders. Moreover, the participatory budget will allow people to change their views and mentality when they work together with Union Parishad.
- Through the Participatory Budgeting process, local citizens and Union Parishad can make climate induced related budget and a new project for their secured livelihood. It will reduce the climate migrant as well.

- The central government can try totake and incorporate belongs to the successful projects or innovations and incorporate their development programs and provide a budgetary allocation. Even the government can jointly work with civil society, businessmen, local elite, Non-Government Organization for continuing any successful project.

VIII. CONCLUSION

Climate change and its impact on human migration are inevitable for Bangladesh and for its poor people. Climate related catastrophic events will continue occurring in Bangladesh and massive numbers of people are at risk of losing their lives and livelihood. Government and international donor agencies have been struggling to reduce the tremendous impact of climate change on this country. They have spent a vast amount of capital investment to help reduce climate impact. This research identifies some approaches to reducing climate-induced migrants and adaptation strategy through the existing national policy. Limited or lack of participation from local people in the budgetary process has proven to be unsuccessful. With people's active participation, the government can identify the main problem and make further plans. The existing budget making process and Union Parishad's unplanned and conventional budgets make the country more vulnerable to climate induced disasters and affect developing regions. The country has an existing climate change policy as well as a seventh five-year plan, the Annual Development Plan, and different government programs yet the status of climate migrants are still increasing.

The participatory budgeting process is a way to manage and reduce climate migration. Introducing Participatory Budgeting which has a focus on climate issues of people in vulnerable areas has a greater probability of increasing the awareness of people about climate change and its impacts. In this process, the Union Parishad budget will be more transparent and accountable. More practical, need-based and prioritized projects will reduce corruption and deliver a quality project with low cost. Through the Participatory Budgetary process, local governments (Union Parishad) improve their fragile relationship with local citizens and other stakeholders. This social capital (linking ties) is very important for people to combat natural disasters ease the resettlement process for victims of natural disasters. Involving citizens in the budgetary process makes a livelihood oriented project for local victimized people.

Furthermore, the Participatory Budgeting process makes an opportunity for citizens to involve and monitor the activities of the projects funded. In this process, local people will also be motivated and satisfied with Union Parishad services. UP will also benefit from collecting local resources and revenue. Union Parishad and local people can identify organizational needs. Union Parishad can easily improve the capacity of their staff by providing training programs. Skilled staff are better

- [35]. MoEF. 2008. Bangladesh climate change strategy and action plan 2009. *Ministry of Environment and Forests*, Government of the People's Republic of Bangladesh, Dhaka. Bangladesh.
- [36]. Myers, N. & Kent, J. 1995. *Environmental exodus: an emergent crisis in the global arena*. Climate Institute.
- [37]. Naser, M. 2012. 'Protecting climate change induced displacement in Bangladesh: legal and policy responses'. Ph.D. Thesis Macquarie University, NSW, Australia
- [38]. Pachauri, R.K., Meyer, L. & Team, C.W. 2015. Climate Change 2014. Synthesis Report. Intergovernmental Panel on Climate Change - IPCC. Geneva. Switzerland.
- [39]. Punimagati Union Parishad, 2016. Fiscal Year 2016-17: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2015. Fiscal Year 2015-16: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2014. Fiscal Year 2014-15: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2013. Fiscal Year 2013-14: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2012. Fiscal Year 2012-13: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2011. Fiscal Year 2011-12: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2010. Fiscal Year 2010-11: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
 . 2009. Fiscal Year 2009-10: Budget Book. Punimagati Union Parishad, Sirajganj. Bangladesh.
- [40]. Rahman, A.A., Alam, M., Aalam, S.S., Uzzaman, M.R., Rashid, M. & Rabbani, G. 2007. Risks, vulnerability and adaptation in Bangladesh. *Human Development Report*, 8.
- [41]. Rahman, H.Z. & Ahmed, T. 2015. Strategy on local government strengthening: *Background paper for 7th Five Year Plan*. Dhaka, Bangladesh.
- [42]. [42]. Rodima, T, D., Olwig, M.F. & Chhetri, N. 2012. Adaptation as innovation, innovation as adaptation: An institutional approach to climate change. *Applied Geography*, 33, 107-111.
- [43]. USDS. 2012. U.S. Department of State. Bureau of Western Hemisphere Affairs Background Note: Bangladesh. March 6, 2012. Viewed on 13 August <<http://www.state.gov/r/pa/ei/bgn/3452.htm>>.
- [44]. Williams, K.R., Gemenne, F. 2016. *Organizational Perspectives on Environmental Migration*. Routledge, New York.
- [45]. World Bank. (2009). *Europe & Central Asia Experience Participatory Budgeting a Toolkit for Local Governments in Albania*. Retrieved from <http://siteresources.worldbank.org/INTALBANIA/Resource/PBP_Toolkit_Dec_06_Eng.pdf>.
- [46]. World Bank, 2016. World Bank Bangladesh, Country at a Glance. <<https://www.worldbank.org/en/country/bangladesh>>. Viewed on 26 October 2016.